

the steps of persons around her were sufficient to "draw her from her attacks of delirium." She had a presentiment of sudden death.

"Two days following there were the same alternatives, the delirium occurring less frequently, and lasting a shorter time; she slept but little that night (the 4th); the next day the only symptoms noticed were aversion to water, light, and air, with the pain of stomach previously complained of. On the sixth day she asked for a bath, and the opium which she took in the evening. A stool brought on strong convulsions and noisy delirium. The women who were attending to her believing her to be possessed by the devil, sprinkled her with holy water, which increased her furious cries and bizarre contortions. The following night was dreadful; the mouth full of foam, the eyes injected, and the delirium almost continuous. About ten in the morning immoderate laughter succeeded the previous symptoms. She ultimately died."

CASE VII. (Ward).—Mary P., aged 13. Measles at age of seven, and has ever since been subject to cough and pain in the side. About one year ago she had her first epileptic fit, during which she attempted to bite and scratch the bystanders. She was not insensible, but delirious. The attacks came on in intervals for a fortnight afterwards, and they became much worse at the end of this time. Her arms were extended and rigid, and the fingers clinched. At other times she struggled violently, and the abdomen became swelled. She never became unconscious. Her disposition was changed, for she grew exceedingly mischievous between the attacks, developing a propensity for climbing trees and playing the hoyden. Ovarian pain sometimes. The attack is occasionally finished by a fit of laughter.

Charcot holds that a very important diagnostic sign is the reduced temperature. In epilepsy the temperature may rise to 107.6° F., while that of the hystero-epileptic rarely attains a height of 100° F. In the cases I have alluded to, Case I. presented all the prominent symptoms by him enumerated, and still the temperature was quite high.

ARTICLE XIX.

CASE OF OXALATE OF LIME CALCULUS, WEIGHING FIVE AND ONE HALF OUNCES, SUCCESSFULLY REMOVED BY LATERAL OPERATION. By E. B. CHAPIN, M.D., of Carbondale, Ill.

ON March 29, 1877, I was called to see Wyatt McK., coloured, aged 48, born in Franklin County, Alabama, and lived there until 1862, since which time he has lived in Cairo and Carbondale, Illinois, working, when able, at his trade—shoemaking.

According to his voluntary statement he had suffered from symptoms of "gravel" since he was six or eight years old; there had been a gradual increase in the severity of the symptoms from that time to the day of operation, interspersed at intervals of from a few weeks to a few months with "fits" of great suffering.

For the last ten or twelve years he had been unable to retain his urine for more than one or two hours, and from the exaggerated sensibility of the neck of the bladder produced by the long-continued mechanical violence, the calls to urinate for the past few months had become almost incessant and imperative, robbing him of rest by day and night. From the almost constant tension of the abdominal walls in the act of straining to evacuate the bladder, the recti muscles had attained a degree of firmness resembling

that of strong, tonic, muscular contraction. There was prolapse of the anus, with inflammation and thickening of the mucous membrane, and also hemorrhoidal tumours.

At the time of my first visit the patient, in great agony, was dancing around the room, a part of the time doubled down, with his nates resting on his heels and his head between his knees, with his hands pinching, pulling, and rolling his genitals and pressing the urethra along its course through the perineum. This paroxysm was only comparatively relieved by full and frequent doses of morphia aided by diluents and fomentations.

An examination of the urine with the microscope showed both pus and blood-corpuscles, but it did not reveal any crystalline deposits; nor was there any evidence of diseased kidneys.

The patient was sounded without anæsthetics, April 6. No. 8, of Van Buren, passed without meeting any obstruction and came in contact with a calculus at the entrance of the bladder just behind the prostate. As the instrument struck the stone there was the peculiar and characteristic *click* of the steel against a hard calculus, which was distinctly heard by all concerned.

The calculus was so tightly held by the firm and contracted, as well as *contracting*, walls of the bladder that it was impossible to change its position; and from its large surface being so firmly pressed against the sensitive urethral portion I was unable without undue violence to pass the sound by it in any direction except in front of and between it and the pubic arch. Although not enabled in this manner to measure the concretion yet I was satisfied it was unusually large and quite hard.

By examining the prostate through the bowel it was found to be as large as a small orange, and very sensitive to the touch. The parts were again examined under ether April 20, when the previous diagnosis was fully confirmed.

For obvious reasons, but chiefly on account of the size and density of the stone, lithotripsy was precluded. The patient after being made fully acquainted with his condition, and the unfavourable prognosis attending an operation, was anxious for relief and most willing to take the risks. Lithotomy having been decided upon, the operation, on account of the exhausted condition of the patient, was delayed until May 1, when, with my friend and former student, Dr. W. R. McKenzie, of Chester, as my chief assistant, the patient, having been duly prepared, was anæsthetized and placed in the lithotomy position.

The staff, Markoe's, which is somewhat triangular and deeply grooved in the centre, was introduced, and, as was the case with the sound, was unable to enter the bladder except by depressing the handle a little and letting the beak of the instrument ride over the stone. With its point thus resting on the calculus and handle depressed, the convex portion could not be brought into a suitable position. Withdrawing the staff an injecting catheter was introduced, but the over-sensitive bladder would not tolerate or retain an ounce of tepid water, even after the patient was fully under the influence of ether.

Seeing now we were to operate in a "dry bladder," the staff was again introduced and held by Dr. McKenzie, with the beak resting on the stone in the manner above mentioned. The usual incision for lateral operation was made, the staff reached, and the urethra opened with the knife; but thinking it unsafe to thrust the knife into an empty bladder, Wood's bisector or double-edged cystotome was used, and the bladder opened

through the prostate by depressing the handle of the staff still more and pushing the bisector onward between the staff and the calculus.

After dilating fully with my finger the prostate on the left side, and some on the right, the forceps were introduced; and, although there was no trouble in *grasping* the stone, there was much difficulty in retaining hold of it, for the stone being large and my forceps so short that when applied the blades stood so nearly at right angles that they would not allow the use of any traction without slipping. At this stage the words of Liston came forcibly to my mind: "*There can be no more fatal error than to attempt the extraction of a large stone with short and shabby forceps.*" A longer and fenestrated pair was then used, but I found the opening insufficient for the passage of the calculus.

Dolbeau's lithoclast, a heavy pair of crushing forceps, with a central raised ridge of heavy teeth pointing backward, with an extra screw for drawing the jaws together, was now tried, but it would not, with the screw attached, open sufficiently wide to engage the calculus, and upon removing the screw from between the handles it was not only difficult to manage the instrument with the handles so far separated, but like the forceps first used had blades, or jaws, too short to retain its grasp.

Abandoning this instrument I divided with a probe-pointed bistoury and my finger the right lobe of prostate to its full limit; now by a more thorough exploration of the cavity I found a constriction of the bladder firmly grasping the calculus at what proved to be near its centre.

Again using the open-bladed forceps, and, while traction with undulating motions was being made, the finger, already in the wound beside the forceps, was pushing the constricting band out of the groove or neck which had been formed, and as the band receded my finger followed it until it was behind the calculus and aided its expulsion.

After washing out the bladder thoroughly, the patient was placed in bed on an inclined plane and given a full dose of opium with brandy. It is unnecessary to give the after-treatment in detail; yet it may be interesting to know he was ordered to take quinia grs. iijss, and opium gr. j, every four hours, but by mistake of the nurse he was given just double that amount, which, being well borne, was continued for two days. Egg-nogg, milk-punch, beef-tea, etc., were given freely for the first few days.

The bowels having been well cleared out the morning of the operation, and he not having taken any solid food since, they were kept quiet until the sixth day, and then were moved with castor oil, assisted by clysters of ox gall and water.

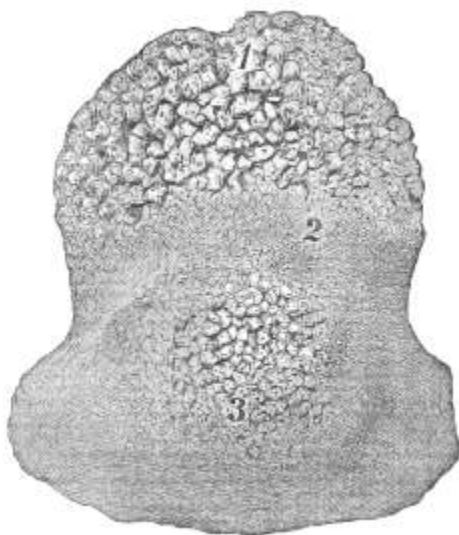
The pulse which had been from 120 to 136 per minute before the operation, had, on the day following the cathartic, come down to 88.

From this time forward, as his appetite and strength increased, medicines and stimulants were gradually withdrawn, and he continued to do well; his bowels acting without cathartics, and the urine passing by the wound for twenty days, when, notwithstanding the large opening through the prostatic urethra, I thought it time the urine should resume its natural channel; and to secure this, and at the same time guard against incontinence of urine, I preferred, instead of tying a catheter *in* the bladder, to have one—a No. 10, soft—introduced regularly every two hours, which he very readily learned to do for himself. After following this plan five days no urine could be made to pass by the cut, and at the time of this writing, June 15, the wound has entirely healed, leaving but a small cicatrix.

This case presents some points of interest which will be briefly noticed.

1st. Although the patient—who is three-fourths negro—was born and raised in Alabama, where vesical calculi are not uncommon, yet we do not expect to find many cases of stone among this race. “It is certainly very rare in the negro.”¹

2d. The stone was an unusually large mulberry calculus (so-called), being composed principally of oxalate of lime, and measuring seven and a quarter inches in circumference in the largest part of its short diameter, and eight and a quarter inches in circumference in its long diameter, and weighing,



1. Sacculated portion; 2. Constricted portion grasped by the walls of the bladder; 3. Anterior lower portion lying at the trigone.

when first extracted, five and a half ounces. Prof. W. H. Van Buren, in his *Treatise on the Genito-Urinary Organs* (p. 262), says: “The hardest stones are more apt to be solitary, and they are generally the smallest in size.” “grow slowly, and seem even to remain stationary for long periods.” Prof. Gross says of this kind of calculus, in his *System of Surgery*, 4th edit., vol. ii. p. 703: “They are almost always comparatively small, no matter what may be their age or the age of the patient.”

When we consider these facts, the size of the stone, its density, having a specific gravity of 1.836, and nearly as hard as marble, and place them beside the patient's history of the case, I think we are justified in saying that the concretion has probably been in process of formation for the long period of forty years.

3d. Nearly one-half of the calculus having been sacculated and held

¹ Van Buren and Keyes on Genito-Urinary Organs, p. 260.

more or less firmly by the constricting band before mentioned is very rough, and the asperities of its crystalline deposit are quite sharp and angular, from the fact that they were protected from attrition during the process of crystallization, while that portion situated within the cavity of the bladder proper is larger and comparatively smooth, although the anterior and lower portion lying imbedded at the trigone and not subjected to any friction motion is also somewhat rough, resembling millet-seed.

4th. The calculus is not as rough as the oxalates generally are, neither is it dark coloured, but is of a light gray or pink colour, and quite crystalline in structure, thus belonging to one of the rare varieties of oxalate of lime calculi mentioned by Holmes.¹

5th. This case shows to what extent an enlarged prostate may sometimes be divided and distended with safe results, which, in this instance, with my finger and forceps beside the calculus must have required an opening of at least three inches in diameter.

6th. The patient, without an unfavourable symptom to follow the operation, has made a speedy and complete recovery, having full control of his urine, and from what he tells me I conclude also that the orifices of the ejaculatory ducts are unimpaired.

7th. Considering the shape of the stone, and the manner in which it was grasped by the bladder wall, I am led to believe this has, at one time during the process of formation, been a true case of sacculated calculus; and that that portion situated within the cavity of the bladder proper has had a formation by accretion, secondary to the pouched or sacculated portion.

ARTICLE XX.

REPORT OF A CASE OF SPONTANEOUS CLOSURE OF A GANGRENOUS SOLUTION OF CONTINUITY IN THE INTESTINE RESULTING FROM STRANGULATED HERNIA. By K. V. R. LANSINGH, M.D., Resident Physician at the Arapahoe County Hospital, Denver, Colorado.

THE annals of surgery contain many curious instances of benefit derived wholly from the *vis medicatrix naturæ*, which conform closely to the best results obtained by operative interference.

These cases are not without their advantage in teaching the surgeon something about the unwritten law of repair, as well as keeping before his mind the almost boundless power of nature, when wisely aided and directed. Not infrequently they serve to point out the readiest means of relief, or to confirm the practice as laid down by intelligent operators.

¹ Treatise on Surgery, p. 804.